



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/038,863	12/31/2001	Christopher P. Olson	KCC 4757 (K.C.No. 16,831	6380

321 7590 08/25/2005

SENNIGER POWERS LEAVITT AND ROEDEL
ONE METROPOLITAN SQUARE
16TH FLOOR
ST LOUIS, MO 63102

EXAMINER

KIDWELL, MICHELE M

ART UNIT

PAPER NUMBER

3761

DATE MAILED: 08/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

TW

Office Action Summary	Application No. 10/038,863	Applicant(s) OLSON ET AL	
	Examiner Michele Kidwell	Art Unit 3761	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 May 2005.
 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18, 20, 22-28, 30 and 31 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1-18, 20, 22-28, 30 and 31 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 – 5 and 7 – 17, 20 and 22 – 23 are rejected under 35 U.S.C. 102(a) as being anticipated by Weber et al. (US 6,221,460).

With reference to claim 1, Weber et al. (hereinafter "Weber") disclose a wetness indicator comprising a liquid permeable enclosure (40) having an interior volume and a liquid absorbent body (50) absorbing liquid in the presence thereof and having an unrestrained volume upon absorption of a preselected amount of liquid, said unrestrained volume of the absorbent body being substantially greater than the interior volume of the enclosure such that the absorbent body applies an expansion pressure to the enclosure upon absorption of said preselected amount of liquid, said enclosure limiting expansion of the absorbent body so that the wetness indicator stiffens as liquid is absorbed, said wetness indicator having a first stiffness when dry and a second stiffness greater than said first stiffness upon absorption of said preselected amount of liquid as set forth in col. 7, lines 16 – 23.

Weber states that the dimensional change member comprises a superabsorbent material that absorbs at least 4 times its own weight. The topsheet (40) limits expansion of the absorbent body through its direct bonding to the underlying layer (figures 6a – 6e) and the absorbent body has a second stiffness upon absorption of the preselected amount of liquid that is greater than the first stiffness when dry as known as an inherent property of superabsorbent material.

With reference to claim 2, Weber discloses a generally elongate wetness indicator as shown in figures 4 – 5.

As to claim 3, Weber discloses an absorbent body comprising a sheet laid over itself at least once to form two folds as set forth in figure 6e.

With respect to claim 4, Weber discloses an absorbent body formed from thin sheet material fan folded longitudinally multiple times to form a multifold structure as set forth in figure 6a.

Regarding claim 5, Weber discloses a wetness indicator that is generally rounded upon absorption of said preselected amount of liquid as set forth in figures 2 – 3.

With reference to claims 7 and 8, Weber discloses an enclosure having at least two generally elongate and parallel chambers as set forth in figure 4.

As to claim 9, Weber discloses a wetness indicator wherein the enclosure comprises a liquid permeable lining (50) and a base layer (49) attached to the lining to from the chambers between the base layer and the liner as set forth in figure 4.

Regarding claim 10, Weber discloses a wetness indicator wherein the base layer (49) is bonded to the lining (50) along a series of parallel, spaced apart seams (42) as set forth in figure 4.

As to claim 11, Weber discloses the wetness indicator being used in combination with a garment and being positioned in a crotch region of the garment as set forth in figure 1.

With reference to claim 12, Weber discloses a garment with an inner surface facing a wearer when wearing the garment (40), and a wetness indicator positioned relative to the inner surface (50), said wetness indicator having a first stiffness when dry and a second stiffness greater than said first stiffness upon absorption of a preselected amount of liquid, said wetness indicator comprising a liquid permeable enclosure having an interior volume and a liquid absorbent body therein, the absorbent body having an unrestrained saturated volume greater than the interior volume of the liquid permeable enclosure as set forth in the rejection of claim 1.

With respect to claim 13, Weber discloses a garment wherein the wetness indicator is positioned in the garment to press on the inner thighs of the wearer as set forth in figure 1. The examiner contends that any device present in the crotch portion of a training pant, diaper, etc. will press on the inner thigh, among other areas, of the wearer due to the construction of the article.

As to claim 14, Weber discloses the garment as toilet training pants as set forth in col. 1, lines 14 – 18.

Regarding claim 15, Weber discloses a generally elongate wetness indicator in figure 4.

With reference to claims 16 – 17 and 22 – 23, Weber discloses the second stiffness as at least about five times greater than the first stiffness as set forth in col. 7, lines 21 – 23.

As to claim 20, Weber discloses the garment wherein the enclosure has at least two generally elongate and parallel chambers as set forth in figure 4.

Claims 1 – 2, 11 – 18, 22 – 24 and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by Glaug et al. (US 5,797,892).

With reference to claim 1, Glaug et al. (hereinafter "Glaug") disclose a wetness indicator comprising a liquid permeable enclosure (52) having an interior volume and a liquid absorbent body (82) absorbing liquid in the presence thereof and having an unrestrained volume upon absorption of a preselected amount of liquid, said unrestrained volume of the absorbent body being substantially greater than the interior volume of the enclosure such that the absorbent body applies an expansion pressure to the enclosure upon absorption of said preselected amount of liquid, said enclosure limiting expansion of the absorbent body so that the wetness indicator stiffens as liquid is absorbed, said wetness indicator having a first stiffness when dry and a second stiffness greater than said first stiffness upon absorption of said preselected amount of liquid as set forth disclose a wetness indicator for alerting a wearer to urination as set forth in col.15, line 40 to col. 16, line 41.

Glaug states that the dimensional change member is made of a compressed cellulose sponge (absorbent material) that expands to at least 2 times its dry dimension when exposed to an aqueous solution (hydraulic pressure). The topsheet (52) limits expansion of the absorbent body through its direct bonding to the support layer (col. 5, lines 34 – 38) and the absorbent body has a second stiffness upon absorption of the preselected amount of liquid that is greater than the first stiffness when dry as specifically taught in col. 16, lines 34 – 37.

As to claim 2, Glaug discloses a wetness indicator that is generally elongate as set forth in figure 6.

Regarding claim 11, Glaug discloses a wetness indicator in combination with a garment (20), said wetness indicator being positioned in a crotch region of the garment as set forth in figure 1.

With reference to claim 12, Glaug discloses a garment with an inner surface facing a wearer when wearing the garment (52), and a wetness indicator positioned relative to the inner surface for alerting a wearer when the inner surface has become wet with liquid (82), said wetness indicator having a first stiffness when dry and a second stiffness greater than said first stiffness upon absorption of a preselected amount of liquid, said wetness indicator comprising a liquid permeable enclosure having an interior volume and a liquid absorbent body therein, the absorbent body having an unrestrained saturated volume greater than the interior volume of the liquid permeable enclosure as set forth in col. 15, line 40 to col. 16, line 41.

With respect to claim 13, Glaug discloses a garment wherein the wetness indicator is positioned in the garment to press on the inner thighs of the wearer as set forth in figure 1.

As to claim 14, Glaug discloses the garment as toilet training pants as set forth in col. 4, lines 37 – 44.

Regarding claim 15, Glaug discloses a generally elongate wetness indicator in figures 1 and 6.

With reference to claims 16 – 18, 22 – 24 and 30, Glaug discloses the second stiffness as at least about five times, or about ten times greater than the first stiffness as set forth in col. 15, lines 45 – 52.

Glaug discloses the sponge as a dimensional change member. The sponge, only one of the materials usable in this capacity, has a first stiffness (x) and a second stiffness (2x – 5x) that is greater than the first stiffness. See col. 15, lines 40 – 52.

The examiner interprets stiffness as it is defined by Webster's Ninth New Collegiate Dictionary. Stiffness is defined as lacking in responsiveness or impeded in movement. In light of the foregoing, the examiner contends that Glaug discloses a wetness indicator with a first dry stiffness and a second stiffness greater than the first because the delay in movement (i.e. absorption of fluids) in the wetness indicator is greater once liquid has been absorbed versus when the wetness indicator is dry.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 3761

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Weber et al. (US 6,221,460).

The difference between Weber and claim 6 is the provision that the wetness indicator has a width between about one-fourth its length and three-fourth its length.

Weber teaches a wetness indicator having a width of 3½ inches (col. 12, lines 50 – 52) and a length that may be varied.

It would have been obvious to one of ordinary skill in the art to modify the length of the wetness indicator in order to provide the desired crush resistance and ventilation as taught by Weber in col. 7, lines 24 – 35. Likewise, since the general conditions of the claim are disclosed in the prior art, discovering the optimum or workable range requires only a level of ordinary skill in the art.

Claims 25 – 28 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glaug et al. (US 5,797,892).

With reference to claim 25, Glaug disclose an article for personal wear capable of alerting a wearer to the wearer's release of liquid body exudates, the article comprising a front region, a back region and a crotch region interconnecting the front and back regions and extending generally longitudinally therebetween (20) and a generally elongate wetness indicator positioned in the crotch region so as to come in contact with the liquid body exudates (22), said wetness indicator having a first stiffness when dry (x)

and a second stiffness greater than the first stiffness upon absorption of a preselected amount of the liquid body exudates (5x).

Glaug discloses the sponge as a dimensional change member. The sponge, only one of the materials usable in this capacity, has a first stiffness (x) and a second stiffness (2x – 5x) that is greater than the first stiffness. See col. 15, lines 40 – 52.

The examiner interprets stiffness as it is defined by Webster's Ninth New Collegiate Dictionary. Stiffness is defined as lacking in responsiveness or impeded in movement. In light of the foregoing, the examiner contends that both Weber and Glaug disclose a wetness indicator with a first dry stiffness and a second stiffness greater than the first because the delay in movement (i.e. absorption of fluids) in the wetness indicator is greater once liquid has been absorbed versus when the wetness indicator is dry.

The difference between Glaug and claim 25 is the provision that the wetness indicator is transversely positioned in the crotch area so as to provide a tactile sensation to the inner thighs of the wearer.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to position the wetness indicator transversely in the crotch area since it has been held that rearranging parts of an invention involves only routine skill in the art.

As to claim 26, Glaug discloses an article wherein the wetness indicator comprises a liquid permeable enclosure (52) and an absorbent body within the liquid permeable enclosure (82), said absorbent body being capable of expansion upon the

Art Unit: 3761

absorption of the liquid body exudates thereby (col. 15, lines 40 – 53), said enclosure limiting the expansion of the absorbent body whereby the wetness indicator stiffens as liquid body exudates are absorbed by the absorbent body.

Glaug discloses the sponge as a dimensional change member. The sponge, only one of the materials usable in this capacity, has a first stiffness (x) and a second stiffness (2x – 5x) that is greater than the first stiffness. See col. 15, lines 40 – 52.

The examiner interprets stiffness as it is defined by Webster's Ninth New Collegiate

Dictionary. Stiffness is defined as lacking in responsiveness or impeded in movement.

In light of the foregoing, the examiner contends that Glaug discloses a wetness indicator that stiffens as liquid body exudates are absorbent because as fluids are absorbed the movement of the layer is impeded.

With reference to claim 27, Glaug discloses an article wherein the second stiffness is at least about five times greater than the first stiffness as set forth in col. 15, lines 48 – 52.

Glaug discloses the sponge as a dimensional change member. The sponge, only one of the materials usable in this capacity, has a first stiffness (x) and a second stiffness (2x – 5x) that is greater than the first stiffness. See col. 15, lines 40 – 52.

The examiner interprets stiffness as it is defined by Webster's Ninth New Collegiate Dictionary. Stiffness is defined as lacking in responsiveness or impeded in movement. In light of the foregoing, the examiner contends that Glaug discloses a wetness indicator with a first dry stiffness and a second stiffness greater than the first.

because the delay in movement (i.e. absorption of fluids) in the wetness indicator is greater once liquid has been absorbed versus when the wetness indicator is dry.

As to claim 28, Glaug discloses a garment wherein an unrestrained saturated volume of the liquid absorbent body is greater than the volume of the liquid permeable enclosure as set forth in col. 8, lines 19 – 35; col. 16, lines 28 – 30 and lines 56 – 59.

Glaug discloses that the liquid absorbent body may comprise expandable foams and compressed cellulose sponges while the liquid permeable enclosure may a tissue paper. The tissue paper, while permeable, will not significantly absorb any fluids. However, the cellulose or expandable foam will absorb and retain the fluids that it is exposed to thereby allowing the volume of liquid absorbent body to be greater than the volume of the permeable enclosure.

As to claim 31, see the rejection of claim 25.

Response to Arguments

Applicant's arguments filed May 9, 2005 have been fully considered but they are not persuasive.

In response to the applicant's argument that Weber fails to show or suggest a wetness indicator having a liquid permeable enclosure with a liquid absorbent body therein configured such that the enclosure limits expansion of the absorbent body so that the wetness indicator stiffens as liquid is absorbed, the examiner disagrees.

Weber discloses a wetness indicator comprising a liquid permeable enclosure (40) having a liquid absorbent body (one uppermost layer of absorbent shown in first

Art Unit: 3761

peak of figure 4) therein, said liquid absorbent body absorbs liquid and as a result applies pressure (as a result of swelling at least 4 times its own weight) to the enclosure. The examiner notes that a preselected amount of liquid may include complete and total saturation of the article and/or any or all of the absorbent material therein. The wetness indicator (the second layer of absorbent under the uppermost layer of absorbent in the first peak of figure 4) has a first stiffness when dry (x) and a second stiffness greater than the first stiffness (4x or 4 times the dry stiffness) upon absorption of the preselected amount of liquid.

The examiner notes that the liquid permeable enclosure is considered to limit expansion because without the liquid permeable enclosure, the superabsorbent material would swell at least 4 times its weight when wetted and come into contact with the skin of the wearer. This would be undesirable to the wearer because it would give the wearer a "wet" feeling on the skin (col. 8, lines 9 – 11) and may produce an adverse reaction to the skin of wearer from coming in direct contact with the superabsorbent materials or any other additives that may be included in the peaks (col. 4, lines 30 – 35).

Further, an interior volume and an unrestrained volume do not necessarily include the total volume of each, respectively. An interior volume may be considered any volume smaller than any unrestrained volume which would ultimately result in the claimed limitations. Likewise, a pressure "to stiffen a peak" is functional and the examiner contends that the reference is fully capable of performing the recited function.

In response to the applicant's argument that Glaug fails to disclose that the sponge stiffens when liquid is absorbent, the examiner disagrees.

Art Unit: 3761

Glaug discloses the sponge as a dimensional change member. The sponge, only one of the materials usable in this capacity, has a first stiffness (x) and a second stiffness (2x – 5x) that is greater than the first stiffness. See col. 15, lines 40 – 52.

The examiner interprets stiffness as it is defined by Webster's Ninth New Collegiate Dictionary. Stiffness is defined as lacking in responsiveness or impeded in movement. In light of the foregoing, the examiner contends that both Weber and Glaug disclose a wetness indicator with a first dry stiffness and a second stiffness greater than the first because the delay in movement (i.e. absorption of fluids) in the wetness indicator is greater once liquid has been absorbed versus when the wetness indicator is dry.

In response to applicant's argument that the references fail to show or suggest a wetness indicator comprised of an enclosure and a liquid absorbent body having an unrestrained volume upon absorbing a preselected amount of liquid whereby the unrestrained volume of the liquid absorbent body is substantially greater than the volume of the enclosure so that upon expansion of the absorbent body within the enclosure the stiffness of the wetness indicator increases, the applicant is reminded that a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the

Art Unit: 3761

prior art. See *In re Casey*, 370 F.2d 576, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 312 F.2d 937, 939, 136 USPQ 458, 459 (CCPA 1963).

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the existence of a pocket) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Again the examiner notes with respect to interior volumes and unrestrained volumes that the volumes are not necessarily inclusive of a total volume of each. An interior volume may be considered any volume smaller than any unrestrained volume which would ultimately result in the claimed limitations.

In response to applicant's argument that the claimed invention solves different problems by stiffening, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michele Kidwell whose telephone number is 571-272-4935. The examiner can normally be reached on Monday - Friday, 5:30am - 2:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tatyana Zalukaeva can be reached on 571-272-1115. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3761

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Michele Kidwell
Primary Examiner
Art Unit 3761